International Civil Aviation Organization

WORKING PAPER

Aeronautical Communication Panel
Working Group I – ATN Internet Communication Services

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VoIP in ATM specification for the
ATN/IPS Manual

Agenda item 4.1 - Status of EUROCAE-WG67 Documents

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SUMMARY

This paper provides an update of the current status of the EUROCAE Documents (EDs) on VoIP in ATM and proposes actions for the update of the EDs reference into the ICAO DOC 9896 edition 2 in view of the future publication.

1   Background

1.1   Introduction

1.1.1   EUROCAE had launched in March 2004 the WG67 aiming at developing standardization of VoIP in ATM.

1.1.2   Three EDs, developed by WG67, had been approved on 2nd of February 2009 by the EUROCAE Council and were published on the EUROCAE website in August 2009. The three EDs set consist of:

1.1.2.1   **ED-136 VoIP ATM System Operational and Technical Requirements** - ED-136 specified the Operational and Technical Requirements of an Air Traffic Management (ATM) Voice Communications System.

1.1.2.2   **ED-137 Interoperability Standards for VoIP ATM Components** – ED137 defined the rules for VoIP implementations to support ATM communications: (ED-137 Part 1), telephone communications (ED-137 Part 2), audio recording (ED-137 Part 3) and system supervision (ED-137 Part 4).

1.1.2.3   **ED-138 Network Requirements and Performances for VoIP ATM Systems** – specified the network requirements for VoIP in ATM. ED-138 was divided into two parts: Network Specification, (ED-138 Part 1) and Network Design Guideline (ED138 Part 2)

1.1.3   As a result of the feedback received from ETSI Plugtest events during 2009 and early 2010 and from pre-operational validation trials between European Air Navigation Service Providers (ANSPs) end 2009, ED137 Interoperability Standards for VoIP ATM Components, Part 1 – Radio and ED137 Interoperability Standards for VoIP ATM Components,Part 2 – Telephony) were the first to evolve. A new version called ED137A was released in September 2010 after a review which included integration of requirements from the FAA.

1.2   Summary of WGI previous actions on VoIP in ATM

1.2.1   ACP WGI#10 reviewed the VoIP EDs (ED136 –138) and made proposals for a draft edition 2 of the ICAO DOC 9896 making reference to the Eurocae VoIP EDs (ED136 – ED138).

1.2.2   ACP WGI#12 reviewed the latest working draft of ICAO DOC 9896 (revision 18). The meeting discussed various updates to this document including VoIP in ATM references to Eurocae WG67 specifications, which would result in Revision 19.

2 Current edition structure of the Eurocae WG67 specification

2.1 ED-137A - Interoperability Standards for VoIP ATM Components, edition September 2010 structure

2.1.1   The evolution of ED-137 called ED-137A resulted in the following documents:

2.1.1.1   ED-137A Part1 – Radio, edition September 2010

2.1.1.2   ED-137A Part 2 – Telephone, edition September 2010

2.1.1.3   ED-137A Part 2A - Telephone Legacy Interworking SIP/ATS-R2, edition September 2010

2.1.1.4   ED-137A Part 2B - Telephone Legacy Interworking SIP/ATS-NO.5, edition September 2010

2.1.1.5   ED-137A Part 2C - Telephone Legacy Interworking SIP/ATS-QSIG, edition September 2010

2.1.1.6   ED-137A Part 3 – Recording, edition February 2009

2.1.1.7   ED-137A Part 4 – Supervision, edition February 2009

2.1.2   To facilitate referencing of the ED137A Part2 – is limited to the VoIP environment while legacy interworking is provided in separate individual documents identified ED-137A Part 2A, 2B and 2C.

2.2 ED-136 and ED-138 current edition structure

2.2.1   With the exception of ED137A the remaining VoIP in ATM EDs (ED-136 - VoIP ATM System Operational and Technical Requirements and ED-138 - Network Requirements and Performances for VoIP ATM Systems are not affected by the current update. They are dated February 2009 as follows:

2.2.1.1   ED-136 - VoIP ATM System Operational and Technical Requirements, edition February 2009

2.2.1.2   ED-138 - Network Requirements and Performances for VoIP ATM Systems, with the following parts:

2.2.1.3   ED-138 Part1 – Network Specification, edition February 2009

2.2.1.4   ED-138 Part 2 – Network Design Guideline, edition February 2009

2.2.2   All documents are published by Eurocae on:

www.eurocae.net

3   Proposed Course of Action for ACP WGI

3.1.1   In view of the above status, the following actions are proposed:

3.1.1.1 To update the references of ED137A within the relevant sections of edition 2 of ICAO DOC 9896 in view of the future publication

3.1.1.2 With reference to future pre-operational validation trials planned within the context of SESAR and NextGen to consider further possible updates of the current specification.